HIV partner notification for adults: definitions, outcomes and standards

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Background and purpose

HIV partner notification (PN) is a process in which contacts of people with HIV are identified and offered HIV testing. This strategy provides considerable opportunities to reach those at highest risk of HIV and reduce onward transmission through approaches such as post-(PEP) and pre-exposure prophylaxis (PrEP), and well established antenatal interventions. Thus effective HIV PN confers benefit to individual health by facilitating earlier diagnosis and linkage to care, and benefits public health by preventing the spread of infection. Achieving effective HIV PN can be challenging - less than 3% of the 4060 individuals newly diagnosed with HIV in a GUM clinic in 2013 are reported as being identified through PN (1). Around a fifth of new infections are recently acquired (1) and these individuals have high levels of viraemia, conferring much greater risk of transmission. There is therefore a pressing need to develop and maintain robust clinical and public health practice for HIV PN across the UK.

This document defines relevant outcomes and proposes standards for HIV PN. It does not describe the processes nor best clinical practice for PN; these are to be found in the BASHH Statement on Partner Notification for Sexually Transmissible Infections and the SSHA Manual for Sexual Health Advisers.

This guidance has been developed by a multidisciplinary group of clinical, public health and third sector experts for use by multiprofessional clinicians, services and commissioners to monitor their performance against agreed standards, with the overall aim of improving the delivery of HIV PN nationally, thereby increasing diagnoses of HIV and impacting on both individual and public health.

Terms and Definitions

Index case: Person with HIV

Contacts: People who have had contact with the index case in a way which is associated with HIV transmission, and who may or may not have HIV infection themselves. (Also see Appendix 3)

Two main contact categories are used, based on whether or not the contact's HIV status is known at the time of the initial PN discussion with the index case. This reflects how contacts are managed in routine clinical practice:

I. Contacts whose HIV status is known: Status-known contacts

II. Contacts whose HIV status is unknown: Status-unknown contacts

I. Status-known contacts: these include known HIV positive contacts (or "contacts whom we know are HIV positive") and known HIV negative contacts ("contacts whom we know are HIV negative because they have had a negative result on a fourth generation HIV test performed 4 weeks or more post-exposure; which is highly likely to exclude HIV infection).[1] For the purpose of audit, we also include deceased contacts in this category, whether or not their HIV status is known.

Index case report is sufficient to assign contact HIV status category for audits. However, for contacts reported as *known HIV negative* it may be clinically advisable to notify if there is any uncertainty as to whether the window period was adequately covered by their HIV negative test.

II. Status-unknown contacts: these are divided into two groups based on whether or not we know enough about them for any PN to be feasible:

- **Contactable:** people for whom a means of contact is available or there is enough known about them to enable them to be "found" through past attendance at a sexual health or HIV service.

- Information provided by the index case may include working mobile number or email address, and suffi cient demographic data to generate means of contact or identification - name and date of birth /address. Appropriate use of all information sources, with index case agreement, including social networking websites, should be considered in attempting to identify contacts.

These are the **"contactable status-unknown contacts"**

- **Uncontactable:** people for whom the index case (or HCP) has no means of contact.

These are the **"uncontactable status-unknown contacts"**

Routes of exposure: Sexual, mother to child (MTC), injecting drug use (IDU), other (including blood/blood product transfusion, organ and skin transplantation, semen donation and needlestick and other injury). Mother to child transmission and testing of children is not covered in this document **()**

Date of likely acquisition: Date / time at which the index case is known or estimated (by HCP clinically or with use of RITA or equivalent) to have acquired HIV.

Look back period: Time period between likely date of acquisition of HIV by index case and start of PN process. This will therefore include all people at risk of exposure.

Health care professional verified outcome: Outcome established directly by HCP. This can be achieved by communicating directly with the contact or by obtaining information about the contact from healthcare services.

Index reported outcome: Outcome is based on what the index case reports to HCP.

Please also see Appendix 1 for further detail in relation to definitions of 'notified' 'contactable partner', 'HIV status known' and changing classification of a partner.

[1] See the BASHH/EAGA statement on HIV window period (http://www.bashh.org/documents/BASHH-EAGA%20statement%20on%20HIV%20WP%20%28Oct%20%2014%29.docx).

[2] For this guidance please see - http://www.chiva.org.uk/files/guidelines/testing-guidelines.pdf

Outcomes and Standards (also see tables Appendix 4)

Outcomes are divided into required primary outcome measures, measures to demonstrate activity, and clinically relevant outcomes. The latter two are not required but are advised so as to capture clinical activity, case mix and access to public health interventions such as PEP.

Primary outcome measures:

1. Number of contacts* tested per total number of index cases.

(* Status-known contacts + number of contactable status-unknown contacts)

2. Proportion (%) of contactable partners tested*

(*Status-known contacts + contactable status-unknown contacts tested / total number of status-known contacts and contactable status-unknown contacts [expressed as %])

3 .Proportion (%) of indexes for whom there is a documented PN plan in the case notes 4 weeks after index case diagnosis. This 4-week timeline may change if there is ongoing risk to a contact and disclosure has not occurred (this should be dealt with under local policy).

Activity, case mix and clinically relevant (PEP) timelines:

To enable services to measure activity that is not captured in the primary outcomes, describe the service's case mix and capture clinically important outcomes the following data should also be recorded.

4. Total number of contacts

5. Number of notified contacts where it is not known whether or not they tested

Timelines:

Outcomes should be measured against standards at the time of diagnosis (outcome 4) and at four weeks (outcome 3) and three months after initiation of the PN process. However, data suggests it is worth continuing PN if unresolved for up to 12 months as additional contacts may be identified. It is also important that for all HIV positive individuals PN should be repeated as indicated should subsequent risk occur. A risk assessment taking into account antiretroviral treatment, viral load results and recency and results of sexual health screen should be undertaken on each occasion.

Standards:

Outcome 1 – at 3 months. These standards are based on results from the BASHH BHIVA 2013 HIV PN audit. Please see appendix two for the derivation of these standards.

Number of contacts* tested per index case.

(status-known contacts + number of contactable status-unknown contacts)*

0.6	HCP verified
0.8	Index reported or HCP verified (i.e those captured via either)

Outcome 2 – at 3 months

Proportion (%) of contactable partners tested*

*(*status-known contacts + contactable status-unknown contacts tested / total number of status-known contacts and contactable status-unknown contacts)*

65% HCP verified

85% Index reported or HCP verified (i.e those captured via either)

Outcome 3 – at 4 weeks

97% index cases with a documented PN plan within 4 weeks of diagnosis

Outcome 4 – at time of HIV diagnosis (where diagnosis is made within service)

97% indexes with PEP assessment: documented evidence of PN discussion at time of diagnosis to determine if any at risk contact has occurred within previous 72 hours to identify and refer partners potentially eligible for PEP.

Data collection

Minimum data set required to produce outcomes:

- Index patient identifier
- Date of HIV diagnosis
- Date of first PN discussion
- Total number of contacts in look back period

Additional items – these are not required to produce the outcome measures but are recommended so as to be able to demonstrate public health benefit and the most efficient use of resources

- Primary HIV infection (within 6 months of acquisition)
- Route of exposure
- Misuse of alcohol or drugs potentially being contributory including chemsex

For each contact record

- Status known
- Status unknown
- Contactable
- Uncontactable

For contactable partners, whether the following occurred, date and whether reported or verified:

- Notified
- Tested
- Test result

References

1. HIV in the United Kingdom: 2014 Report. Public Health England. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/401662/2014_PHE_HIV_annual_report_draft_Final_07-01-2015.pdf (accessed 2nd August 2015)

Appendix 1

Explanatory notes –for a detailed description of partner notification practice please refer to the SSHA manual: http://www.ssha.info/resources/manual-for-sexual-health-advisers/
The National AIDS Monitor aidsmap website also provides useful resources, particularly for patients: http://www.aidsmap.com/Partner-notification/page/1323074/
General principles involved with PN are given in the BASHH Statement on Partner Notification for Sexually Transmissible Infections: http://www.bashh.org/documents/4445.pdf. These include service provision by HCP with the appropriate competencies, safeguarding issues, provision of supporting written policies, collaborative working in clinical networks and with local Health Protection Units, documenting the reason for declining the offer of PN in the patient record, and annual quality monitoring of PN activity.

Contactable

The full name, address and landline telephone or mobile phone number are ideal. A date of birth is useful to allow addresses to be obtained from the Patient Administration System (PAS), the Family Health Services Authority (FHSA) or the GP. Alternatives might include first name/ nickname/ profile name; email address; social media site; or school/college/university; place of work.

However the information available may be much more limited or may change throughout the PN process, such that an initially contactable person becomes un-contactable and vice versa. When reporting the outcomes it is the final contact status that should be applied. However it is the potential not the actual status that decides the category – a lack of response does not change the contact's status, e.g someone who does not answer their phone remains contactable.

As long as there is a means of contact they should be classified as contactable –this could be as little as a first name and a mobile phone number.

Changing classification

A contactable contact may have their classification changed if the details given prove to be incorrect/ineffective/insufficient, and no further details are available from the index. An example would be a mobile number that is no longer active, but not one that is not answered. It would include a bounced email due to wrong address, but not 'inbox full'. It could also include 'profile deleted'.

Similarly, a person may initially appear to be contactable because the index expects to see them, or find further contact details, or make contact through a third party. If, at follow-up interview, the index reports that efforts were unsuccessful, the contact should be re-classified as 'uncontactable'.

Outcomes

The contact should only be classified as 'notified' if a patient or a health care worker has spoken to him/her, or there is evidence that a message sent via text, post, email or dating website has been received. Unacknowledged communication should not be recorded as a successful outcome e.g. unanswered text, no response to voice mail/ letter

HIV test result status known

The HIV test result status may not necessarily be known by the index at the time of the initial PN discussion, but includes all those contacts who were aware of their HIV status at the time; it may be discovered via the PN process but the contact did not need to test as a part of the process.

Appendix 2: Derivation of standards

These standards are based on results from the BASHH BHIVA 2013 HIV PN audit and consensus agreement at the expert stakeholder meeting held on 28th March 2014 (see Appendix 5 for attendees). The national averages, regional ranges and clinic interquartile ranges of PN outcomes were used to derive the standards. Decreasing variation between clinics was a key driver.

Results from the audit corresponding to the above standards

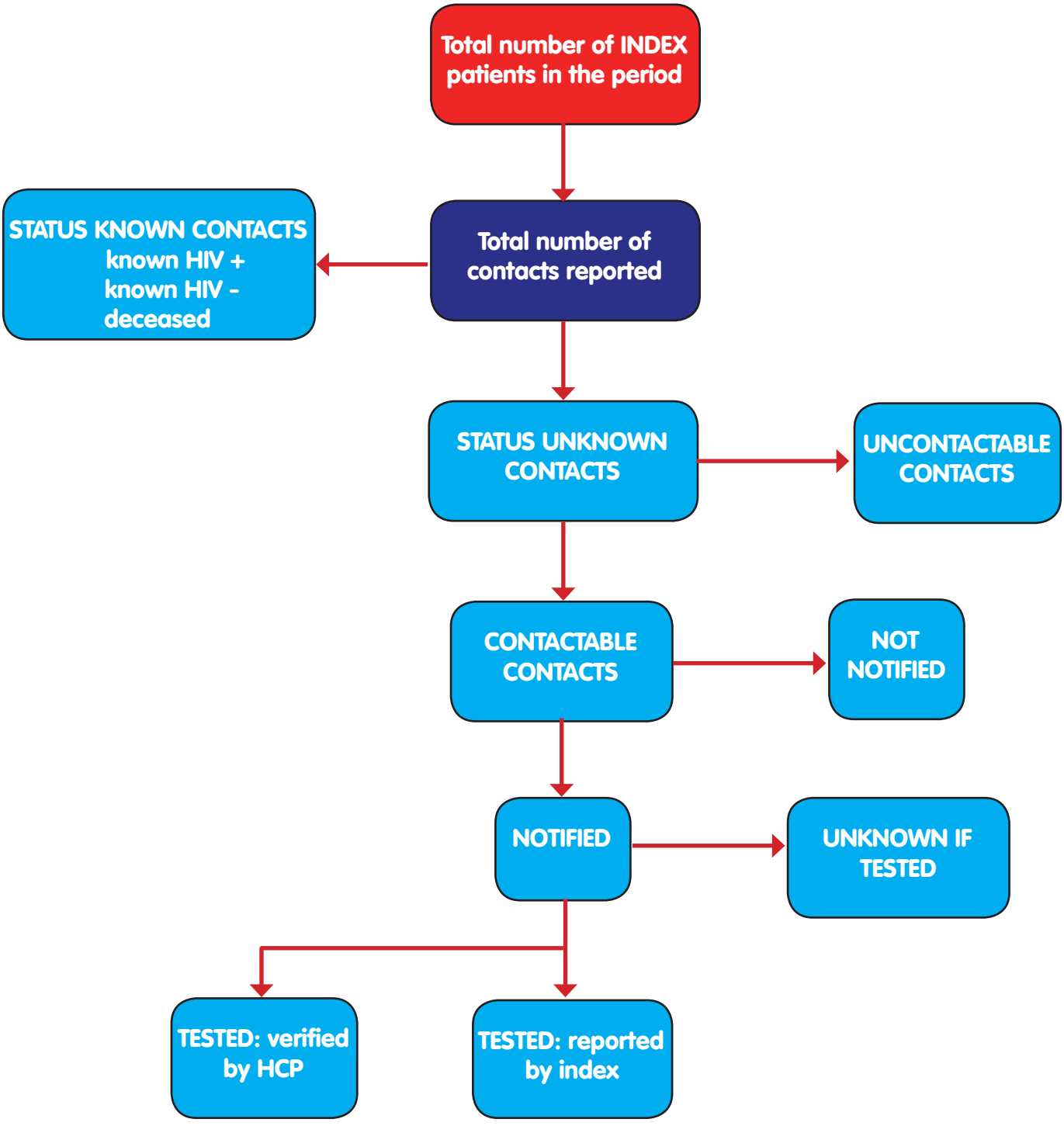
Outcome 1

HCP verified	**0.6**
National average	0.45
Regional range	0.29 – 0.75
Clinic lower and upper quartiles	0.31 – 0.70
Index reported or HCP verified	**0.8**
National average	0.64
Regional range	0.43 – 1.0
Clinic lower and upper quartiles	0.50 – 0.90

Outcome 2 (%)

HCP verified	**65**
National average	52.9
Regional range	32.6 – 74.6
Clinic lower and upper quartiles	37.3 - 80.0
Index reported or HCP verified	**85**
National average	74.6
Regional range	61.2 – 93.6
Clinic lower and upper quartiles	68.2 – 100

Appendix 3: Categorisation of contacts and outcomes



Appendix 4: Primary Outcomes and Standards

Outcome	Definition	Calculation of the outcome	Standard to be achieved	Time point at which outcome is measured
1	Number of contacts tested per total number of index cases	Number of status-known contacts + number of status-unknown contacts tested /total number of index cases	0.6 HCP verified 0.8 Index reported or HCP verified (expressed as a number)	3 months
2	Proportion of contactable partners tested	Number of status-known contacts + contactable status-unknown contacts tested / total number of status-known contacts + contactable status-unknown contacts	65% HCP verified 85% Index reported or HCP verified (expressed as %)	3 months
3	Proportion of indexes with documented PN plan	Number of index cases with documented PN plan/total number of index cases	97% (expressed as %)	4 weeks
4	Proportion of indexes with documented PEP assessment (where diagnosis is made within service)	Number of index cases with documented PN discussion at time of HIV diagnosis with PEP assessment / total number of index cases	97% (expressed as %)	At time of index's HIV diagnosis

Activity and case mix

Outcome/Measure	Definition	Calculation of the outcome	Comments
Contacts notified	Number of contacts notified per total number of index cases	Number of status-known contacts + number of status-unknown contacts notified /total number of index cases	Captures contacts who were notified but it is unknown if they tested or not; i.e. effective clinical intervention but not contributing to reported outcomes
Case mix	Proportion of contacts who are uncontactable	Number of status unknown uncontactable contacts/ number of all status unknown contacts	Provides granularity of types of contacts which may account for different levels of performance

Appendix 5: Expert stakeholder meeting on HIV Partner Notification: agreeing definitions, standards, outcomes and data for capture, held on Friday 28th March 2014

Attendee List

Name	Organisation
Dr Andrew Freedman	BHIVA /Cardiff Institute of Infection & Immunity
Dr Ann Sullivan	Chelsea and Westminster Hospital NHS Foundation Trust
Dr Michael Rayment	Chelsea and Westminster Hospital NHS Foundation Trust
Garry Brough	Terrence Higgins Trust (THT)
George Valiotis	HIV Scotland
Gill Bell	Sheffield Teaching Hospitals NHS Foundation Trust
Hamish Mohammed	Public Health England (PHE)
Hilary Curtis	BHIVA
Jabu Chwaula	HIV Prevention England (HPE)
Jackie Routledge	Lancashire County Council
Jamie Hardie	Chelsea and Westminster Hospital NHS Foundation Trust
Jonathan Roberts	Brighton and Sussex University Hospitals
Katy Sinka	Public Health England (PHE)
Marie Keaveney	Guy's and St. Thomas' Hospitals
Merle Symonds	Barts Health NHS Trust
Ruth Lowbury	MEDFASH
Sally Thomas	NAT
Dr Vanessa Apea	Barts Health NHS Trust
Dr Yusef Azad	NAT
Justine Mellor	CMFT Manchester
Dr Valerie Delpech	Public Health England (PHE)
Vicky Gilbart	Public Health England (PHE)

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Pilot sites

The pilot was led by Dr Michael Rayment and Dr Rachel Caswell. The participating centres in the pilot were:

WLCSH (Ceri Evans)
JHC (Jamie Hardie)
56DS (Elizabeth Kershaw)
Sheffield GUM (Gill Bell)
Sheffield ID (Gill Bell)
Imperial Jefferis Wing (Olamide Dosekun)
Brownlee/Sandyford Glasgow (Martin Murchie)
Newcastle upon Tyne Hospitals NHS Trust (Edmund Ong)
Manchester CMFT (Debbie Thomas)

Their contribution was much appreciated

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Valerie Delpech, Public Health England
Jackie Cassell, Brighton and Sussex Medical School
Hilary Curtis, BHIVA Audit and Standards Committee
Martin Murchie, Society of Sexual Health Advisors
Claudia Estcourt, Barts and the London School of Medicine and Dentistry